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EXAMINER

HO, HOA1 V

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 06/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/730,586

Applicant(s)

AVNI ET AL.

Examiner

Hoai V. Ho

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 15-22 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3, 4 & 9 6) ☐ Other:

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1. This office acknowledges receipt of the following items from the Applicant:

- Information Disclosure Statement (IDS) was considered.

The specification and drawings filed on 8/27/01 are approved.

2. Claims 1-14 are presented for examination.

#### ***Election/Restriction***

3. Applicant's election of claims 1-14 in Paper No. 7 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Therefore, claims 15-22 are withdrawn from further consideration.

#### ***Double Patenting***

4. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

5. Claims 1-14 are rejected under the judicially created doctrine of double patenting over claims 1, 9 and 13-15 of U. S. Patent No. 6,396,741 since the claims, if allowed, would improperly extend the "right to exclude" already granted in the patent.

The subject matter claimed in the instant application is fully disclosed in the patent and is covered by the patent since the patent and the application are claiming common subject matter, as follows: adapting programming pulses to a memory array; programming and verifying the desired threshold of the selected memory cell; etc.

Furthermore, there is no apparent reason why applicant was prevented from presenting claims corresponding to those of the instant application during prosecution of the application which matured into a patent. See *In re Schneller*, 397 F.2d 350, 158 USPQ 210 (CCPA 1968). See also MPEP § 804.

#### ***Claim Rejections - 35 USC § 112***

6. Claims 1-14 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01.

In claim 1, the omitted steps are: how do programming pulses apply to which terminal of three terminals, the gate, source, and drain, of a memory cell?

Claims 2-13 are rejected for incorporating the defects of the parent claim.

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7. Claims 2, 3, 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 2, line 4, “fastest bit” is unclear and confusing. What does it mean to compare with others?

Similarly, in claim 3, line 5, how does a “fast bit” relate to “all of the bits of said memory array” in line 7 of claim 3?

Also in claim 3, line 7, “programming generally all of the bits of said memory array” is unclear and confusing. How does it relate to a “small set of bits of said memory array” in line 3 of claim 3?

Claim 5, lines 1 and 2, “wherein said generally all of the bits is all of the bits of the array but the bits of said small set” is unclear and confusing.

Similarly, claim 6, lines 1 and 2, “wherein said generally all of the bits is all of the bits of said array” is unclear and confusing. How does it relate to a “small set of bits of said memory array” in line 3 of claim 3?

8. There is insufficient antecedent basis for the limitations in the following claims:

Claim 2 recites the limitations “the fastest bit” and “the general vicinity” in line 4 and line 6, respectively.

Claim 3 recites the limitation “a programming pulse level” in line 10.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

- (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Applicant

Admitted Prior Art (AAPA).

AAPA, starting at the first three paragraphs in page 4 of the instant disclosure and Figure 1 to 3C, is directed to a method for programming a memory array, the method using programming pulses, the method comprising the step of: adapting said programming pulses to the current state of said memory array (verifying a programmed '122A, 122B and 122C', repeating '120 and 122' said steps of controlling and verifying until said cell reaches said programmed state).

11. Claims 1-14 are rejected under 35 U.S.C. 102(a) as being anticipated by Cohen et al. USP 6292394.

Figures 1-4 of Cohen is directed to a method for programming a memory array, the method using programming pulses, the method comprising the step of: adapting said programming pulses to the current state of said memory array.

12. Claims ~~1-38 and 41-48~~<sup>1-14</sup> are rejected under 35 U.S.C. 102(b) as being anticipated by Khan et al. USP 5870335 (IDS).

Figure 4 of Khan is directed to a method for programming a memory array, the method using programming pulses, the method comprising the step of: adapting said programming pulses to the current state of said memory array. See column 2, lines 34-36 and , lines 39-41 and column 4, lines 25-31 and lines 49-53,

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13. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Kazerounian et al. (5042009) discloses a method for programming of a memory device.
14. When responding to the office action, Applicants are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.
15. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).
16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (703) 308-4839. Other inquiries of this application should be called to (703) 308-0956.



H. Ho  
May 29, 2002



Hoai V. Ho  
Primary Examiner  
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